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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,060	08/02/2004	Klemens Sensen	P69752US0	4233

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EXAMINER

EASHOO, MARK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/502,060

Applicant(s)

SENSEN ET AL.

Examiner

Mark Eashoo, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-30 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 14-30 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 25-27-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rice (US Pat. 3,932,103) in view of Smith (EP 0 626 247 A1).

Rice teaches the basic mutual fixation of at least two components which together border areas for carrying a plastic melt in a tubular film die (fig. 2); and a fastening member that is structured to carry a fluid (eg. coolant) (fig. 2, elements 43 and 45). It is intrinsic that the Rice provides a process of assembling the structure of figure 2.

Rice does not teach both inlet and outlet passages for a blown film die. However, Smith teaches both inlet and outlet passages for a blown film die (figs. 2-3). Rice and Smith are combinable because they are from the same field of endeavor, namely, blown film dies. At the time of invention a person of ordinary skill in the art would have found it obvious to have provided another passage, like the first, in the structure of Rice, and would have been motivated to do so because Smith suggests that multiple passages may be used for both inlet and exhaust of a film cooling fluid thereby providing accurate temperature control of the formed film.

Although Rice is silent with respect to the amount of force/torque (ie. lower force) used to mount the structures for fixation is submitted that the optimal torque would have been provided in order to prevent leaking or the extruded resin through the joint between the fixed parts and not so tight so as to damage the fasteners.

Lastly, it is submitted that the figure 2 of Rice suggests that the die parts, including the bolts, are made of steel/metal. As such it is intrinsic that they are capable of expanding if heated or cooled during operation.

Claims 14, 16-18, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rice (US Pat. 3,932,103) in view of Smith (EP 0 626 247 A1).

Rice teaches a basic tubular film die head comprising: at least two components which together border areas for carrying a plastic melt in a tubular film die (fig. 2); an annular die gap (fig. 2); cavities in a fastener and inner walls of a die head (fig. 2); circular and/or cylindrical fasteners/bolts disposed eccentrically about the die (fig. 2); and a fastening member that is structured to carry a fluid (eg. coolant) (fig. 2, elements 43 and 45). It is intrinsic that the Rice provides a process of assembling the structure of figure 2.

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Rice does not teach both inlet and outlet passages for a blown film die. However, Smith teaches both inlet and outlet passages for a blown film die (figs. 2-3). Rice and Smith are combinable because they are from the same field of endeavor, namely, blown film dies. At the time of invention a person of ordinary skill in the art would have found it obvious to have provided another passage, like the first, in the structure of Rice, and would have been motivated to do so because Smith suggests that multiple passages may be used for both inlet and exhaust of a film cooling fluid thereby providing accurate temperature control of the formed film.

Claims 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rice (US Pat. 3,932,103) in view of Smith (EP 0 626 247 A1) as applied to claims 14, 16-18, and 22-24 above, and further in view of Schirmer (US Pat. 3,539,666).

Rice teaches the basic claimed tubular film die head as set forth above. Rice does not teach insulating a bore or fitting comprising a die passage for a fluid. However, Schirmer teaches insulating a bore or fitting comprising a die passage for a fluid (fig. 1, element 36). Rice and Schirmer are combinable because they are from the same field of endeavor, namely, annular extrusion film dies. At the time of invention a person of ordinary skill in the art would have found it obvious to have insulated a bore or fitting comprising a die passage for a fluid, as taught by Schirmer, in the structure of Rice, and would have been motivated to do so because Schirmer suggests that such insulation would reduce heating of a coolant when traveling through a die during operation.

Claims 14, 19, 20, 22-24 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (EP 0 626 247 A1) in view of Teutsch et al. (US Pat. 5,069,612) and/or Ronden (US pat. 3,471,899).

Smith teaches a basic tubular film die head comprising: at least two components which together border areas for carrying a plastic melt in a tubular film die (figs. 2-3); an annular die gap (figs. 2-3); and a plurality of eccentrically arranged cavities in an inner wall of a die head for the transport of a fluid (inlets and exhausts) (fig. 2). It is intrinsic that the Smith provides a process of assembling the structure of figure 2.

Smith does not teach a fastener that holds together all the die components and has a passage for carrying a fluid. However, Teutsch et al. teaches a fastener that holds together all the die components (eg. nozzle ring, clamping bars, and connecting plates) and has a passage for carrying a fluid. (fig. 1, elements 142, 114, 112, 34, etc.). It is noted that Smith is silent with respect to how the die parts are held in position. Smith, Teutsch et al., and Ronden are combinable because they are from the same field of endeavor, namely, blown film dies. At the time of invention a person of ordinary skill in the art would have found it obvious to have used a clamping means having a passage for carrying a fluid, as taught by Teutsch et al., in the structure of Smith, and would have been motivated to do so because Teutsch et al. suggests such clamping means is an

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equivalent means for hold a die together and providing fluid passageways in a limited space. Alternatively, it is noted that Ronden provides evidence that other fasteners such as the regular hollow bolts may be used as fasteners for dies. It is submitted that a person of ordinary skill in the art would have used a hollow bolt as a clamping bolt (104 of Teutsch et al.), as a fastener in Smith, since Smith provides through holes similar to those for the clamping bolt (104) of Teutsch et al. and therefore would provide an equivalent and alternative die clamping/fastening means.

Claims 15, 21 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (EP 0 626 247 A1) in view of Teutsch et al. (US Pat. 5,069,612) and/or Ronden (US pat. 3,471,899) as applied to claims 14, 19, 20, 22-24 and 28-29 above, and further in view of Schirmer (US Pat. 3,539,666).

Smith teaches the basic claimed tubular film die head as set forth above. Smith does not teach insulating a bore or fitting comprising a die passage for a fluid. However, Schirmer teaches insulating a bore or fitting comprising a die passage for a fluid (fig. 1, element 36). Smith and Schirmer are combinable because they are from the same field of endeavor, namely, annular extrusion film dies. At the time of invention a person of ordinary skill in the art would have found it obvious to have insulated a bore or fitting comprising a die passage for a fluid, as taught by Schirmer, in the structure of Smith, and would have been motivated to do so because Schirmer suggests that such insulation would reduce heating of a coolant when traveling through a die during operation.

Response to Arguments

Applicant's arguments filed 05-APR-2006 have been fully considered but they are not persuasive, because:

A.) In response to applicant's argument that Smith does not suggest use of another fastening element as a coolant carrying element, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Applicant's argument overlooks the broad teachings of Smith which provides multiple coolant conduits/passages within a die head. Thus, the duplication of passageways is rendered obvious and it is submitted that a person of ordinary skill in the art would have modified the means already present (ie. using another bolt like that of element 43) in Rice for an additional passageway.

B.) Applicant's argument that Schirmer does not teach insulating the fastening elements is not persuasive. Applicant's argument ignores the broad teaching of Schirmer that specifically teaches insulation

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of the cooling conduit within a die head. Accordingly, it is submitted that a person of ordinary skill in the art would recognize the cooling conduit of Rice and insulate it appropriately, which would require the fastening element 43 to be insulated.

C.) Other arguments with respect to the new claims have been substantially responded to in the above rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732

May 1, 2006
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01 / May / 06